

A REVISION OF THE AUSTRALIAN CHIROMYZINI
(STRATIOMYIIDAE. DIPTERA).

By G. H. HARDY.

(Seventeen Text-figures).

[Read 30th July, 1924.]

Introductory Note. (Written January, 1924).—When this paper was nearly completed, Dr. E. W. Ferguson received for publication from Professor M. Bezzi, a criticism of Enderlein's genera and species. In view of the early publication of my larger paper dealing with the same subject, Professor Bezzi has since decided to withdraw his contribution. Nevertheless he had expressed views and made critical remarks which forestall some opinions and synonymy here recorded, and, as I have been guided in more than one point by opinions expressed in the manuscript, I publish the following extracts:—

Referring to Enderlein's system of using wing venation, a variable character, in dividing the group into subfamilies and tribes, Professor Bezzi rightly points out that different specimens of "the same species may be enclosed in different subfamilies and tribes."

In view of the possibility of separating the Australian from the South American species of *Chiromyza*, he suggests "the generic name *Archimyza* may thus be used for the Australian species of *Chiromyza* if they are not congeneric with the American ones."

Dealing with Enderlein's tribe Xylophagini he says, "But in this same tribe Dr. Enderlein has erected a new genus *Psegmoptera* for some subapterous females from Australia distinguished in two species, *aurifrons* the type species and *machiliformis*. From the description it is evident that this genus is the same as *Boreoides* Hardy, the type species *aurifrons* being equal to the type species *subulatus*."

"It is not clear why Dr. Enderlein has placed his genus *Psegmoptera* with the *Xylophagini*, in as much as the winged males, unknown to him, have a two branched media and thus belong to his tribe *Metoponiini*."

My first paper revising the Tribe Chiromyzini (These Proc., 1920) dealt chiefly with the synonymy of the genera of the world. At that time, unknown to me, Dr. Gunther Enderlein and Professor M. Bezzi were also engaged upon revisional studies in this tribe. Dr. Bezzi received my paper before the publication of his and he has disagreed with some of my suggestions regarding the synonymy of certain genera. The most important matter which Dr. Bezzi would amend regarding the Australian material is the utilisation of the name *Chiromyza*.

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for Australian species, and he considered all the Australian forms other than those of *Metoponia* might have to be placed under the genus *Boreoides* (see introductory note above for a modification of this view).

Enderlein, on the other hand, has placed every species known to him, including *Metoponia*, numbering five in all, in different genera, and, moreover, he does not recognise their position in the tribe *Chiromyzini*, but distributes the five species among three other tribes. The material studied by Enderlein, consisting of one or two specimens in each case, was too small for him to have realised the great variation in venation that is found in a series of most species,—a variation that is maintained in those he described as new, according to the more abundant material before me. The structures he used in forming his elaborate system of classification prove to be very unstable and unsuitable, for it is possible to find, within a series of one species, characters that would make the different individuals fit, not only Enderlein's different genera, but also his different tribes.

Unfortunately, neither Bezzi nor Enderlein has given a character or a combination of characters that would be adequate to separate completely the Australian from the South American forms of the genus *Chiromyza*, nor have I been able to detect any, so, until they are available, it seems advisable to retain the better-known generic names and to await further evidence before introducing new ones.

It is impossible to determine definitely, from examination of pinned specimens, the exact number of annulations in the antennae. Even when they are examined under the microscope the number may appear different from that shown by prepared micro-slides. For instance, Macquart and Enderlein both give eight annulations to the third segment of the antennae in *Metoponia*, and this is apparently correct; nevertheless, all micro-preparations which I have examined indicate seven at the most.

Amongst the new features of this paper, which must be regarded as an appendix to the former one, I have introduced the proportional length of the first segment of the posterior tarsi in relation to the second segment and the tibia of the same limb; this affords a reliable clue to the identification of specimens. Many specimens were measured for the purpose, but only one of each sex (the types when available) are given in the accompanying table (p. 362). Other specimens vary widely in actual measurements but the proportions remain constant.

The references and synonymy given here are limited to additional ones relating to Australian material only, and with regard to the synonymy given in my original revision the following may be adjusted:—

Inopus despectus Walker may have to be removed from the synonymy of *Metoponia*. Bezzi gives this species (originally described without a locality) as from South America, but I do not know his reasons for so doing.

Hylorus Philippi may be removed from the synonymy of *Chiromyza*, as this South American genus is considered by both Enderlein and Bezzi to be distinct.

Enderlein gives characters for the genus *Nonacris* that would prohibit its inclusion under *Chiromyza* (*sensu stricto*), but Bezzi considers the typical species to be identical with a recognised *Chiromyza*.

By the courtesy of Dr. Bezzi, and Dr. C. P. Alexander, both of whom have supplied specimens, I have found that the typical species of *Allognosta* belongs to the tribe Beridini, despite the absence of scutellar spines. The normal mouth parts are situated on a normal unsunken face and are without the tubercle; also

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the female has the typical Beridini abdomen and not that of the characteristic Chiromyzini.

The following table shows the lengths of the tibiae and first two joints of the tarsi on the posterior legs of Australian Chiromyzini:—

		Tibia		Tarsi				Specimens measured.
		♀	♂	1st joint		2nd joint		
		mm.	mm.	mm.	mm.	mm.	mm.	
<i>Metoponia</i>								
<i>rubriceps</i>	Macq. . . .	2.	1.8	1.2	1.1	.6	.6	pair in Australian Museum
<i>gemina</i>	Hardy	2.6	2.	1.6	1.2	.8	.6	holotype and allotype
<i>Boreoides</i>								
<i>subulata</i>	Hardy	3.7	3.2	2.4	2.	1.7	1.	holotype and a paratype male in National Mus. (allotype damaged)
<i>tasmaniensis</i>	Bezzi	2.6	2.4	1.8	2.3	.8	1.	female and allotype male in National Museum
<i>Chiromyza</i>								
<i>grandicornis</i>	Hardy	—	1.7	—	.6	—	.2	holotype
<i>longicornis</i>	Hardy	—	1.7	—	1.	—	.5	holotype
<i>australis</i>	Macq.	3.1	3.	2.	1.6	.8	.8	pair in Australian Museum
<i>stemmaticalis</i>	Enderl.	2.4	2.4	1.6	1.7	.8	.7	female in Queensland Museum and allotype
<i>matruelis</i>	Enderl. . . .	3.	2.2	2.1	1.2	.9	.6	female and allotype male
<i>ava</i>	Enderl.	3.3	2.3	2.7	1.5	1.2	.9	allotype and female in Queensland Museum
<i>prisca</i>	Walk.	2.7	2.	1.8	1.2	1.	.6	allotype female and male in Australian Museum

Since the publication of my earlier paper, and greatly owing to the interest taken in Miss V. Irwin Smith's studies in the biology and anatomy of *Metoponia rubriceps*, the tribe has become well known to Australian entomologists. In consequence, there is scarcely a collection of Diptera from a mountain area that does not bring to light an undescribed species of this group, but, unfortunately, in these collections only one sex is represented. On this account, only one new species is described and it is selected for the purpose because it forms a connecting link between the typical *Chiromyza* and that form originally described as *Xenomorpha grandicornis*, which is also known from the male.

Key to the tribes of the Beridinae.

1. Abdomen with seven visible segments Subfam. *Beridinae* 2
2. Abdomen with five or six visible segments *Other subfamilies.*
1. Mouth parts very small, but nevertheless developed; mouth situated on a tubercle placed on a much sunken face. Scutellum without spines. Apical segments of the abdomen exerted and usually rather ovipositor-like in the female Tribe *Chiromyzini* 3

the female has the typical Beridini abdomen and not that of the characteristic Chiromyzini.

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<i>gemina</i>	Hardy	2.6	2.	1.6	1.2	.8	.6	holotype and allotype
<i>Boreoides</i>								
<i>subulata</i>	Hardy	3.7	3.2	2.4	2.	1.7	1.	holotype and a paratype male in National Mus. (allotype damaged)
<i>tasmaniensis</i>	Bezzi	2.6	2.4	1.8	2.3	.8	1.	female and allotype male in National Museum
<i>Chiromyza</i>								
<i>grandicornis</i>	Hardy	—	1.7	—	.6	—	.2	holotype
<i>longicornis</i>	Hardy	—	1.7	—	1.	—	.5	holotype
<i>australis</i>	Macq.	3.1	3.	2.	1.6	.8	.8	pair in Australian Museum
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Key to genera and species of the Chiromyzini.

3. Sexes dimorphic with regard to colour, the head of the female red, thorax and abdomen black; the male brown, eyes contiguous. First tarsal segment of posterior legs twice the length of the second and three-fifths that of the tibia gen. *Metoponia* 4
Sexes similar in colour, head never red. One species with a metallic thorax 5
4. First antennal segment about four times the length of the second
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First antennal segment only a little longer than the second
gemina Hardy.
5. Female apterous or with vestigial wings. Eyes in the male separate . . .
gen. *Boreoides* 6
Female never apterous, wings fully developed
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6. Female with vestigial wings. Discal cell of male open. In male the first segment of the posterior tarsi about as long as the tibia
tasmaniensis Bezzi.
Female entirely apterous. Discal cell of male closed. In male the first segment of the posterior tarsi two-thirds the length of the tibia
subulatus Hardy.
7. Eyes very widely separated in the male and more hairy than usual. Thorax metallic. Third segment of the antennae very swollen
grandicornis Hardy.
Eyes of male approximate, contiguous, or, if separated, never with a swollen third antennal segment. Never metallic 8
8. Antennae with the third segment swollen, rather long. Eyes in the male approximate for a short distance
longicornis, n.sp.
Antennae with the third segment more or less conical, with or without traces of annulations 9
9. Eyes in the male separated. First tarsal segment of posterior legs in female two-thirds, in male about half the length of the tibia
australis Macq.
Eyes in the male contiguous or approximating for a long distance 10
10. Hind tarsi of male considerably swollen. First tarsal segment in male about three-fifths, in female two-thirds the length of the tibia
prisca Walk.
Hind tarsi of male ordinary, slender 11
11. Third antennal segment in female containing two conspicuous annulations. First segment of posterior tarsi in both sexes two-thirds the length of the tibia *stematicalis* Enderl.
Third antennal segment more or less obscurely marked with more than two annulations 12
12. Hind tarsi with first segment two-thirds the length of the tibia in female and about half in male *matruelis* Enderl.
Hind tarsi with first segment four-fifths the length of the tibia in female, and less than two-thirds in male . . *ava* Enderl.

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Genus METOPONIA Macquart.

Macquart, Dipt. Exot. suppl. 2, 1847, 28; Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 54; Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 181.

Character.—Both sexes of both species have the proportions of the posterior legs identical, namely the first tarsal joint is twice the length of the second and three-fifths that of the tibia.

METOPONIA RUBRICEPS Macquart.

Macquart, Dipt. Exot. suppl. 2, 1847, Pl. i., fig. 4; Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 534, Pl. xxix., figs. 5 and 6; Irwin-Smith, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 505-530, Pl. xxvii. and xxviii., 23 text-figs.; xlv., 1921, 252-255, 8 text-figs.; xlviii., 1923, 49-81, 50 text-figs.; Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 181.

Hab.—Enderlein adds Adelaide to the distribution of this species, therefore it is now known to range from Queensland to South Australia.

METOPONIA GEMINA Hardy.

Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 535, Pl. xxix., figs. 1-4.

Hab.—South Australia must be added to the distribution. A female in Dr. Ferguson's collection, from Adelaide, collected by A. H. Elston, agrees fairly well with this species.

Genus BOREOIDES Hardy.

Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 539.—*Psegmoptera* Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 177.

There can be little doubt concerning the above synonymy, as Enderlein's characters agree with those of *Boreoides*, and the typical species in each case is undoubtedly identical.

The families in which various Australian entomologists have placed the species of *Boreoides* in collections are very wide. Bezzi records that specimens were sent to Dr. C. P. Alexander as Tipulidae. Another position was that of a female of a species of Apioceridae, and it was so placed under the conviction that it was captured *in cop.* with one of that family. The MS. name *Boreomyia* was responsible for its position as an Empid: Coquillett published the name *Boreomyia* for *Boreodromyia*, and the misprint was copied into Aldrich's catalogue, in which was found a generic name the same as that of Walker's MS.

BOREOIDES SUBULATUS Hardy.

Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 540, Pl. xxx., f. 17-22.—*Psegmoptera aurifrons* Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 178.

There can be little doubt regarding the above synonymy. Enderlein's description comes well within the variations of the species as at present recognised.

The first segment of the posterior tarsi is one and two-fifths the length of the second and two-thirds that of the tibia on the holotype female. The allotype male is damaged, but a paratype shows the proportions to be twice and about two-thirds respectively.

BOREOIDES MACHILIFORMIS Enderlein.

Psegmoptera machiliformis Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 178.

The determination of the specific identity of this, the second of Enderlein's species, is left till more material from Adelaide, the type locality, becomes avail-

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Psegmoptera machiliformis Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 178.

The determination of the specific identity of this, the second of Enderlein's species, is left till more material from Adelaide, the type locality, becomes avail-

able for study. It will be observed that Enderlein had only two specimens of the genus under consideration, and the species is very variable in size, coloration and other characters. Moreover, all Australian specimens examined by me show that the proportional lengths of the segments on the posterior legs are similar, and some of these specimens show greater differences in other respects than has been indicated in Enderlein's descriptions. Despite these differences, I have been unable to establish a second species, owing to gradations between the various forms. The amount of pubescence and its colour on the front, and also the distinctness of the median longitudinal furrow on the thorax (two of Enderlein's chief differences) are most certainly variable characters that cannot be used for specific determination.

BOREOIDES TASMANIENSIS Bezzi.

Bezzi, Ann. Mag. Nat. Hist. (9), ix., 1922, 323-328, fig.

Male.—Cubital vein forked, the vein that should close the discal cell not indicated, first and second postical veins branched, third postical absent. First tarsal segment of the posterior legs two and one-third times the length of the second and about as long as the tibia; the proportions on the female are two and one-fourth, and two-thirds respectively.

Bezzi divided the Tasmanian female specimens from those of the mainland, chiefly on account of their possession of vestigial wings, a character borne out by a re-examination of that specimen collected by C. E. Cole near Hobart and referred to in my previous paper. A male from Mt. Wellington undoubtedly belongs to this genus and species.

Hab.—Tasmania. One male allotype, Mt. Wellington, 5.1.18 and a female, Hobart, both taken by C. E. Cole, are in the National Museum, Melbourne.

Genus CHIROMYZA Wiedemann.

Wiedemann, Nova Dipt. Gen., 1820, 19; Hardy, Proc. Linn. Soc. N.S. Wales. xlv., 1920, 536.—*Archimyza* Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 157.—*Stenimas* Enderlein, *ibid.*, 175.—*Hylorops* Enderlein, *ibid.*, p. 179.

Despite the fact that Enderlein would place the species known to him in different subfamilies and tribes, all his genera contain species very closely allied and undoubtedly congeneric.

All the species described below, except the first two, conform to the definition given in my previous paper. Of those two, the second is described as being a form intermediate between the first and the more typical species of *Chiromyza*. Into this now complex group come all species of the *Chiromyzini* in which the females are provided with fully developed wings and the head is not red.

(*C. grandicornis* and *C. longicornis* are appended here, as it is assumed that the unknown female of each species has the wings developed. That both could be separated from all other species of *Chiromyza* on account of the nature of the antennae is recognised, but the following objections render such treatment inadvisable:—(1) The females are unknown; (2) The two species are probably not congeneric, as they differ from each other in every respect but the nature of the third antennal segment; (3) Many allied genera have been proposed during recent years and there is nothing to indicate that, when these are defined on a more satisfactory system than at present, one or more of them will not become available for one or both species under discussion).

able for study. It will be observed that Enderlein had only two specimens of the genus under consideration, and the species is very variable in size, coloration and other characters. Moreover, all Australian specimens examined by me show that the proportional lengths of the segments on the posterior legs are similar, and some of these specimens show greater differences in other respects than has been indicated in Enderlein's descriptions. Despite these differences, I have been unable to establish a second species, owing to gradations between the various forms. The amount of pubescence and its colour on the front, and also the distinctness of the median longitudinal furrow on the thorax (two of Enderlein's chief differences) are most certainly variable characters that cannot be used for specific determination.

BOREOIDES TASMANIENSIS Bezzi.

Bezzi, Ann. Mag. Nat. Hist. (9), ix., 1922, 323-328, fig.

Male.—Cubital vein forked, the vein that should close the discal cell not indicated, first and second postical veins branched, third postical absent. First tarsal segment of the posterior legs two and one-third times the length of the second and about as long as the tibia; the proportions on the female are two and one-fourth, and two-thirds respectively.

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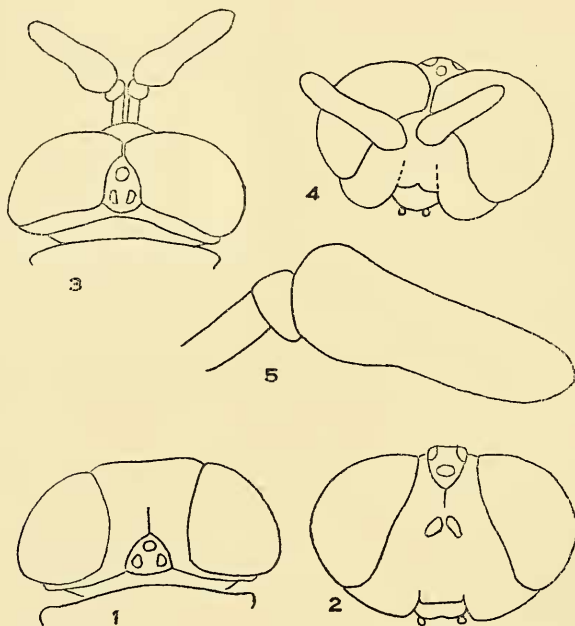
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CHIROMYZA GRANDICORNIS Hardy. (Figs. 1, 2).

Xenomorpha grandicornis Hardy, Proc. Roy. Soc. Tasmania, 1920, 39, f. 3; Proc. Linn. Soc. N.S. Wales, xlv., 1920, 539.

Male.—Agreeing with the genus *Barbiellinia* Bezzi, in respect to the broadly separated eyes, which are more hairy than in the typical *Chiromyza*, this species disagrees with characters given for that genus in every other respect.

In the original description it is stated that the face "does not recede as" in *C. australis*, which should have read "recedes to a less extent than"; this character makes the tubercle on which the mouth is situated also less marked, though definitely present.



Figs. 1, 2. *Chiromyza grandicornis* Hardy, male.

1. Head seen dorsally; 2. Head, anterior view.

Figs. 3-5. *Chiromyza longicornis*, n.sp., male.

3. Head seen dorsally; 4. Head, anterior view; 5. Antenna.

The first segment of the posterior tarsi is about three times the length of the second and over one-third that of the tibiae.

Unfortunately since the unique type was originally described, both of the antennae have been lost; a diagram was given when the description was made and here further figures of the head are added.

CHIROMYZA LONGICORNIS, n.sp. (Figs. 3-5).

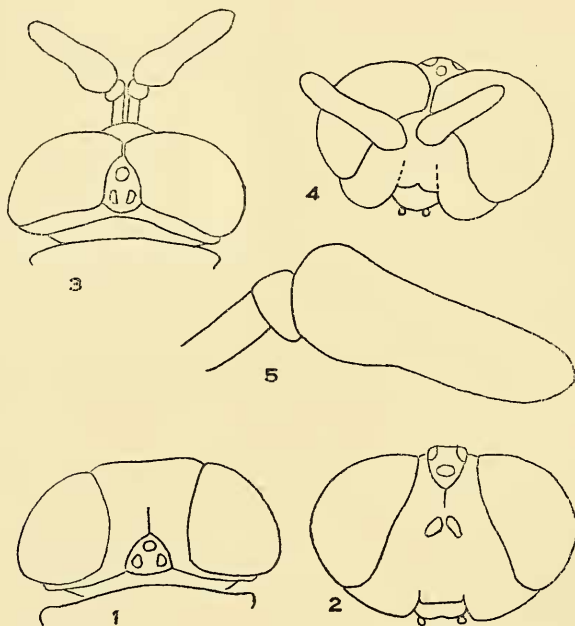
Male.—Eyes very sparsely pubescent, contiguous for a short distance near ocelli, then separating abruptly well above the antennae. Antennae rather long, second segment half the length of the first, and the third, like that of *C. grandicornis*.

CHIROMYZA GRANDICORNIS Hardy. (Figs. 1, 2).

Xenomorpha grandicornis Hardy, Proc. Roy. Soc. Tasmania, 1920, 39, f. 3; Proc. Linn. Soc. N.S. Wales, xlv., 1920, 539.

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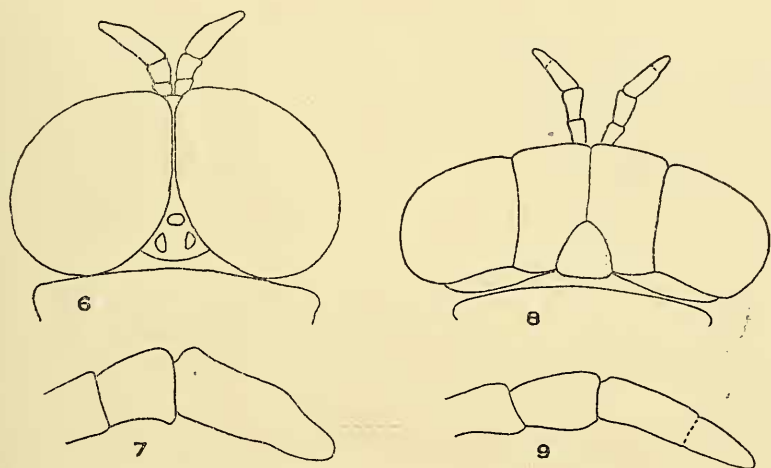
Male.—Eyes very sparsely pubescent, contiguous for a short distance near ocelli, then separating abruptly well above the antennae. Antennae rather long, second segment half the length of the first, and the third, like that of *C. grandicornis*.

cornis, swollen, without annulations and more than twice the length of the two basal ones united. The colour agrees with that of the typical form of the genus and the markings of the thorax are indicated. In all three specimens examined the upper branch of the cubital fork is present and the third postical vein is absent. First segment of the posterior tarsi twice the length of the second and three-fifths that of the tibiae. Length: ♂. 6 mm.

Hab.—Queensland, National Park, March, 1921. Holotype and two paratype males. Although searched for, the females were not discovered; two other species, both males, were found, one being *C. stemmaticalis*, the other a new form referred to under *C. australis*.

CHIROMYZA AUSTRALIS Macquart.

Xenomorpha australis Macquart, Dipt. Exot. suppl. 4, 1850, 54, Pl. iii., f. 7.—*Chiromyza australis* Hardy, Proc. Linn. Soc. N.S. Wales, xlv., 1920, 538, Pl. xxx., f. 12-16.—*Hylorops australis* Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 180.



Figs. 6-9. *Chiromyza stemmaticalis* Enderlein.

6. Head of male; 7. Antenna of male; 8. Head of female; 9. Antenna of female.

Macquart described both sexes under the name *Xenomorpha australis*, and, although I believe the females identified by me are identical with Macquart's, the males do not conform to the original description. The thick posterior tarsi referred to by Macquart occur on a male found in the National Park, Queensland, and also on another from Blackheath, N.S.W., but in neither of these are the eyes separate as recorded by Macquart.

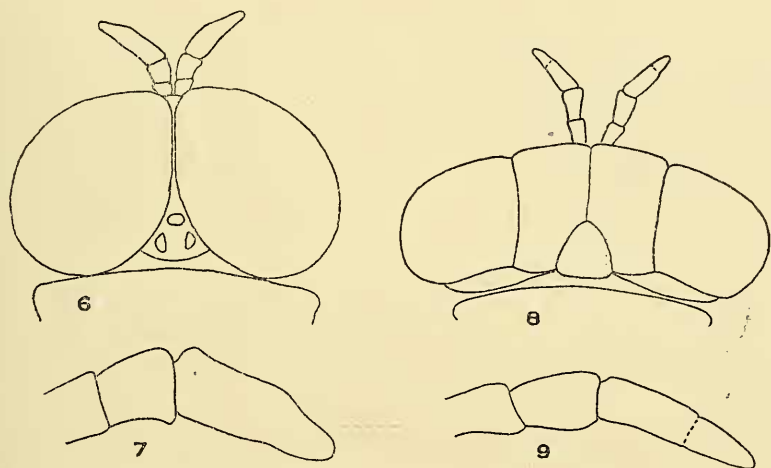
Bigot's description of the female of *C. vicina* also seems to apply to the females referred here, as at least one of the specimens described agrees in the main colour markings given for that species, and is the only species so far examined having the central stripe of the thorax divided, making two central stripes with two large trapezoidal spots on each side. The remainder of the insect also agrees fairly well with Bigot's description.

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The first segment of the posterior tarsi is twice the length of the second and more than one-half that of the tibiae in the male, whilst the proportions in the female are two and a half times, and two-thirds respectively.

CHIROMYZA STEMMATICALIS Enderlein. (Figs. 6-9).

Stenimas stemmaticalis Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 175.

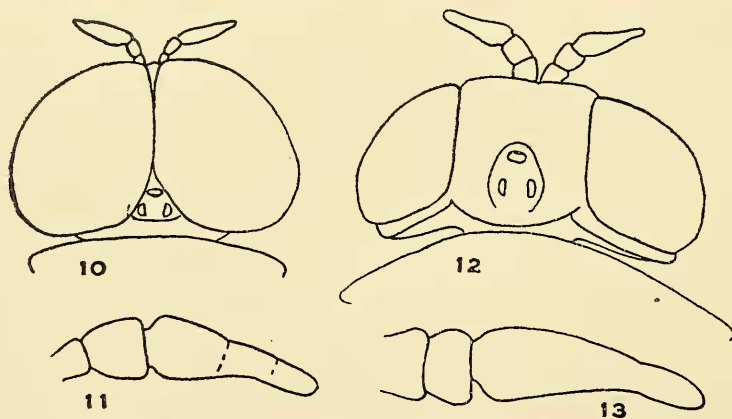
Male.—Eyes approximate for a long distance. Upper branch of the cubital vein absent in all the males, but present in the female; third postical vein strongly indicated; antennae very short, third segment very little longer than the two basal ones united. First segment of the posterior tarsi slightly more than two and a half times the length of the second and two-thirds that of the tibiae; in the female these proportions are slightly less than two, and two-thirds respectively.

Hab.—Queensland. In the Queensland Museum there are three paratype males and one female taken in the National Park, Dec., 1921, by H. Hacker. A male from the same locality, Mar., 1921, taken by myself, is chosen for the allotype of this species.

CHIROMYZA MATRUELIS Enderlein. (Figs. 10-13).

Hylorops matruelis Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 180.

Enderlein does not give a locality for this species other than "Australia,"



Figs. 10-13. *Chiromyza matruelis* Enderlein.

10. Head of male; 11. Antenna of male; 12. Head of female;
13. Antenna of female.

but his description refers to a dark brown median line on the central stripe of the thorax. This character appears to be unique in the female of the species here described under Enderlein's name.

Male.—Eyes contiguous near ocelli, approximate near antennae; very sparsely pubescent. Antennae rather long, first segment short, the second about the same length but much broader, the third tapering to a black apex and with at least six obscure annulations. Thorax with one median and two lateral stripes discernible. Posterior tarsi with very slight indications of the swollen character found in the males of *C. prisca*; the first segment twice the length of the second and about half the length of the tibiae. The wings have the upper branch of the

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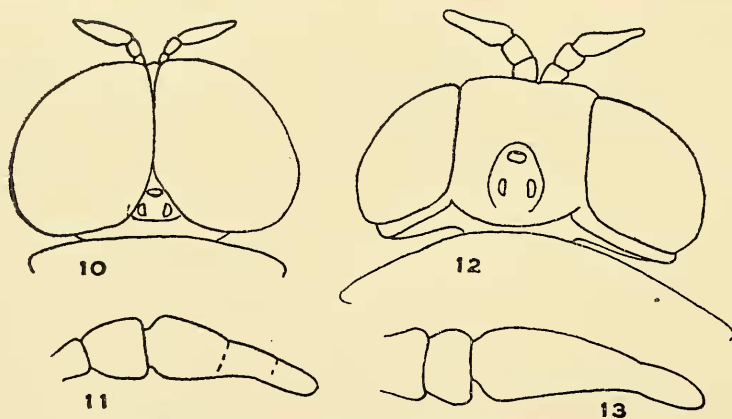
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cubital vein present, the third postical vein absent. The colour is the typical yellowish-brown.

Female.—Eyes widely separated, posterior tarsi with the first segment two and one-third times the length of the second and two-thirds that of the tibiae. The upper branch of the cubital vein is absent. Other characters as in the male. *Length*: Male 8 mm., female 15 mm.

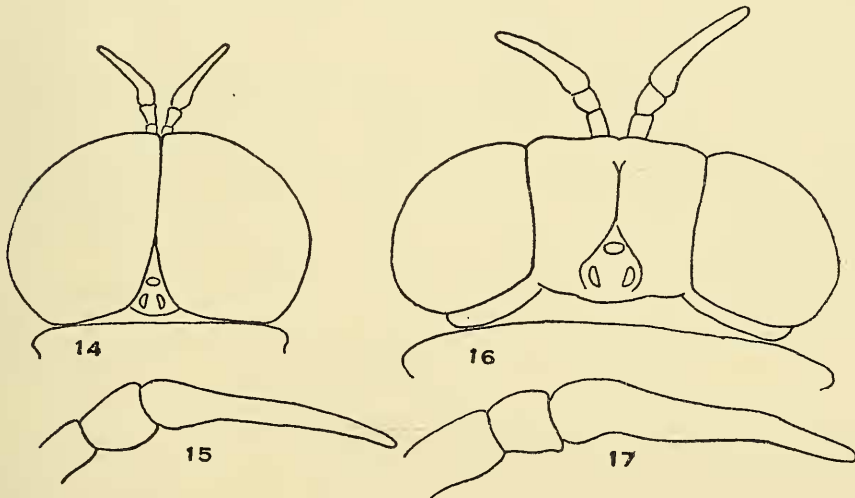
Hab.—South Australia: Mt. Lofty, Mylor, April and May, 1921, collected by Mr. John Formby.

Types.—Male allotype and one female in my collection; three paratype males and four females in that of Dr. Ferguson; these specimens were originally sent to Dr. Ferguson by Mr. G. H. Dutton. One female in the Australian Museum.

CHIROMYZA AVA Enderlein. (Figs. 14-17).

Archimyza ava Enderlein, Mitt. Zool. Mus. Berl., x., 1921, 157.

Eyes in the male contiguous for a long distance. Third segment of the an-



Figs. 14-17. *Chiromyza ava* Enderlein.

14. Head of male; 15. Antenna of male; 16. Head of female;
17. Antenna of female.

tennae longer than the two basal ones united and conspicuously annulated; six annulations are definitely present. Upper branch of the cubital vein present in all specimens examined, the third postical vein absent or indicated by a stump. The first segment of the posterior tarsi in the male is one and two-thirds the length of the second and less than two-thirds that of the tibiae; in the female these proportions are two and a quarter, and more than four-fifths respectively. There is a slight tendency towards the formation of the male tarsi referred to as swollen, found on *C. prisca*.

Hab.—Queensland. Tambourine Mt., April, 1911. (H. Hacker).

Types.—Allotype male and six male paratypes, together with two females, in the Queensland Museum.

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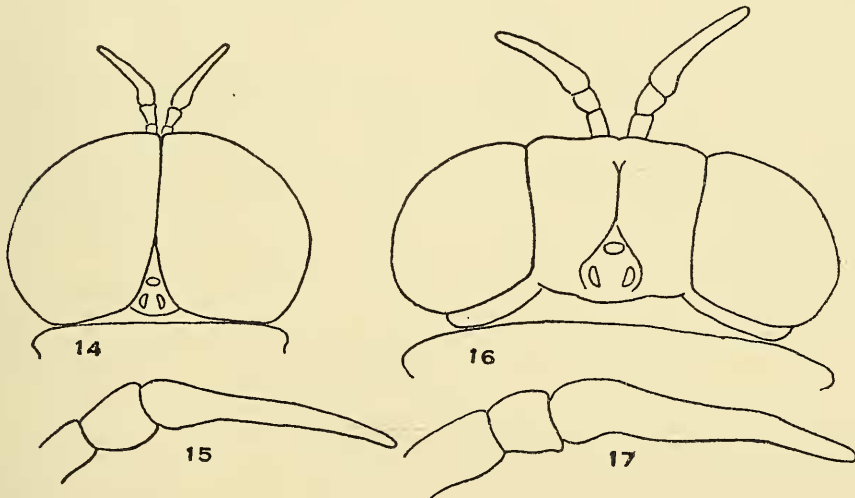
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CHIROMYZA PRISCA Walker.

Walker, *Ins. Saund. Dipt.*, 1852, 162; Hardy, *Proc. Linn. Soc. N.S. Wales*, xlv., 1920, 539, Pl. xxix., f. 7-11.

The first segment of the posterior tarsi in the male is twice the length of the second and three-fifths that of the tibiae; in the female these proportions are one and four-fifths, and two-thirds respectively.

Literature dealing with Australian Chiromyzini.

BEZZI.—*Ann. Mag. Nat. Hist.* (9), ix., 1922, 321-328. (The first Eremochaetous Dipteron with Vestigial wings).

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BIGOT.—*Ann. Soc. Ent. France* (5), ix., 1879, 200.

ENDERLEIN.—*Mitt. Zool. Mus. Berlin*, x., 1921, 153-214. (Ueber die phyletisch alteren Stratiomyiiden-subfamilien).

HARDY.—*Proc. Roy. Soc. Tasm.*, 1920, 33-64. (Australian Stratiomyiidae).

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IRWIN-SMITH.—*Proc. Linn. Soc. N.S. Wales*, xlv., 1920, 505-530; xlv., 1921, 252-5 and 425-452; xlviii., 1923, 49-81. (Dealing with the biology and anatomy of *Metoponia rubriceps* Macq.).

MACQUART.—*Diptères exotiques nouveau ou peu connus. Supplements 2 and 4*, 1847, 1850.

OSTEN-SACKEN.—*Entomologischer Verein. Berl. Ent. Zeitschr.*, xxvi., 1882; xxvii., 1883.

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WHITE.—*Proc. Roy. Soc. Tasm.*, 1914 and 1916.

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